

APG  
JFW

DOCKET NO. P04756 (NATI15-04756)

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant application of: Peter J. Sallaway, et al.

Serial No.: 09/751,037

Filed: December 29, 2000

For: SYSTEMS FOR MONITORING AND CONTROLLING  
OPERATING MODES IN AN ETHERNET TRANSCEIVER AND  
METHODS OF OPERATING THE SAME

Group No.: 2661

Examiner: Ian N. Moore

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

11/22/2005 DTESEM1 00000078 500208 09751037

01 FC:1402

500.00 DA

**SUBSTITUTE APPEAL BRIEF**

In response to the Notice of Non-Compliant Appeal Brief dated October 18, 2005, the Appellants respectfully submit this Substitute Appeal Brief.

The Appellants have appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner dated March 28, 2005, finally rejecting Claims 1-38. The Appellants filed a Notice of Appeal on June 28, 2005, which was received by the U.S. Patent and Trademark Office on July 1, 2005. The Appellants respectfully submit this brief on appeal with the appropriate statutory fee.

**REAL PARTY IN INTEREST**

This application is currently owned by National Semiconductor Corporation as indicated by an assignment recorded on April 9, 2001 in the Assignment Records of the U.S. Patent and Trademark Office at Reel 011699, Frame 0127.

**RELATED APPEALS AND INTERFERENCES**

There are no known appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this pending appeal.

**STATUS OF CLAIMS**

Claims 1-38 have been rejected pursuant to a final Office Action dated March 28, 2005. Claims 39-51 have been allowed pursuant to the final Office Action dated March 28, 2005. Claims 1-38 are presented for appeal. A copy of all pending claims is provided in Appendix A.

**STATUS OF AMENDMENTS**

No amendments were filed after issuance of the final Office Action dated March 28, 2005 and refused entry by the Examiner.

**SUMMARY OF CLAIMED SUBJECT MATTER**

Regarding Claim 1, a controller 130 controls the operating modes of a network transceiver 100 having a decoder 125 and an encoder 120. (*Application, Page 12, Lines 1-3; Page 12, Line 22 – Page 13, Line 3*). The controller 130 includes an encoder portion 135 operable to direct the encoder 120 to encode data in one of an industry-compliant mode and a custom mode. (*Application, Page 13, Lines 5-7*). The controller 130 also includes a decoder portion 140 operable, in response to sensing data received in the custom mode at the decoder 125, to direct the decoder 125 to decode the received data in the custom mode. (*Application, Page 13, Lines 7-15*). The decoder portion 140 is also operable, in response to sensing data received in the custom mode at the decoder 125, to direct the encoder portion 135 to direct the encoder 120 to encode data in the custom mode. (*Application, Page 13, Lines 7-15*).

Regarding Claim 9, a network transceiver 100 includes a decoder 125, an encoder 120, and a controller 130, and a method of operating the controller 130 allows the operating modes of the network transceiver 100 to be monitored and controlled. (*Application, Page 12, Lines 1-3; Page 14, Lines 17-21*). The method includes sensing data received at the decoder 125 in one of an industry-compliant mode and a custom mode. (*Application, Page 15, Lines 10-12; Page 18, Lines 13-15*). The method also includes directing the encoder 120, in response to sensing data received in the custom mode at the decoder 125, to encode data in the custom mode. (*Application, Page 15, Lines 16-21; Page 19, Lines 12-20*).

Regarding Claim 18, a network transceiver 100 is couplable to a computer system 300. (*Application, Page 21, Line 22 – Page 22, Line 9*). The network transceiver 100 includes an encoder

120 that encodes data to be transmitted by the network transceiver 100. (*Application, Page 12, Lines 19-20*). The network transceiver 100 also includes a decoder 125 that decodes data received by the network transceiver 100. (*Application, Page 12, Lines 21-22*). The network transceiver 100 further includes a controller 130, associated with the decoder 125 and the encoder 120, that controls operating modes of the network transceiver 100. (*Application, Page 12, Line 22 – Page 13, Line 3*). The controller 130 includes an encoder portion 135 operable to direct the encoder 120 to encode data in one of an industry-compliant mode and a custom mode. (*Application, Page 13, Lines 5-7*). The controller 130 also includes a decoder portion 140 operable, in response to sensing data received in the custom mode at the decoder 125, to direct the decoder 125 to decode the received data in the custom mode. (*Application, Page 13, Lines 7-15*). The decoder portion 140 is also operable, in response to sensing data received in the custom mode at the decoder 125, to direct the encoder portion 135 to direct the encoder 120 to encode data in the custom mode. (*Application, Page 13, Lines 7-15*).

Regarding Claim 26, a computer system 300 includes a network transceiver 100, and a method of operating the network transceiver 100 allows the operating modes of the network transceiver 100 to be monitored and controlled. (*Application, Page 21, Line 22 – Page 22, Line 9; Page 14, Lines 17-21*). The method includes sensing data received at a decoder 125 associated with the network transceiver 100 in one of an industry-compliant mode and a custom mode. (*Application, Page 15, Lines 10-12; Page 18, Lines 13-15*). The method also includes encoding data to be transmitted by the network transceiver 100 in the custom mode in response to sensing data received at the decoder 125 in the custom mode. (*Application, Page 15, Line 16 – Page 17, Line 1; Page 19*,

*Lines 12-22).*

### **GROUNDS OF REJECTION**

1. Claims 1-7, 9-16, 18-24, and 26-37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,740,163 to Herve (“*Herve*”).
2. Claims 8, 17, 25, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Herve* in view of U.S. Patent No. 6,721,916 to Agazzi (“*Agazzi*”).

### **ARGUMENT**

#### **I. GROUND OF REJECTION #1 (§ 102 REJECTION)**

The rejection of Claims 1-7, 9-16, 18-24, and 26-37 under 35 U.S.C. § 102(b) is improper and should be withdrawn.

#### **A. OVERVIEW**

Claims 1-7, 9-16, 18-24, and 26-37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,740,163 to Herve (“*Herve*”).

#### **B. STANDARD**

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are

in the claims. (*MPEP* § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (*Fed. Cir.* 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP* § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (*Fed. Cir.* 1985)).

**C. THE HERVE REFERENCE**

*Herve* recites a “visiophone terminal” capable of being connected to an integrated services digital network (ISDN) or a switched telephone network (STN). (*Abstract*; *Col. 1, Lines 25-27*). The terminal includes ISDN codecs 6, 13 and STN codecs 24, 25. (*Col. 3, Lines 54-56*). The ISDN codecs 6, 13 include an ISDN audio encoder 31, audio decoder 32, video encoder 35, and video decoder 36. (*Col. 4, Lines 12-23*). The STN codecs 23, 25 include an STN audio encoder 33, audio decoder 34, video encoder 37, and video decoder 38. (*Col. 4, Lines 12-23*). A switch 28 is used to select either ISDN or STN mode. (*Col. 3, Lines 58-65*). A management system 18 includes various components, including signaling units 23, 29 that represent the procedures used to establish visiophone calls. (*Col. 3, Lines 35-38; Col. 3, Line 66 – Col. 4, Line 1*). Figures 2-7 of *Herve* illustrate data flows within the visiophone terminal when the visiophone terminal is performing an answering/recording function. (*Col. 4, Lines 6-9*).

**D. CLAIMS 1-7, 9-16, 18-24, AND 26-37**

Claim 1 recites a controller that controls operating modes of a network transceiver having a decoder and an encoder, where the controller includes:

an encoder portion operable to direct said encoder to encode data in one of an industry-compliant mode and a custom mode; and a decoder portion operable, in response to sensing data received in said custom mode at said decoder, to direct:

    said decoder to decode said received data in said custom mode; and

    said encoder portion to direct said encoder to encode data in said custom mode.

The Examiner fails to establish that *Herve* anticipates a “decoder portion” that directs an encoder portion to direct an encoder to encode data in a custom mode “in response to sensing data received in [the] custom mode at [a] decoder.”

*Herve* simply recites that different kinds of audio encoders/decoders and different kinds of video encoders/decoders may be used in a terminal. For example, the ISDN encoders/decoders may be used when communicating with an ISDN visiophone terminal, and the STN encoders/decoders may be used when communicating with an STN visiophone terminal. (*Col. 4, Lines 42-44; Col. 5, Lines 5-7*). *Herve* lacks any mention of using the encoders to encode data in a particular mode “in response to sensing” data received in that particular “mode” at the decoders. In particular, *Herve* lacks any mention of using the ISDN audio encoder 31 to encode audio data by “sensing” ISDN-encoded audio data received at the ISDN audio decoder 32. Similarly, *Herve* lacks any mention of using the STN audio encoder 33 to encode audio data by “sensing” STN-encoded audio data received at the STN audio decoder 34.

At most, *Herve* uses the management system 18 to set the switch 28, and the switch 28 controls whether the visiophone terminal operates in ISDN or STN mode. However, *Herve* never recites that the particular mode (ISDN or STN) is selected by “sensing” data received in that

particular “mode” at a “decoder.” In fact, to provide data to the appropriate decoders of *Herve*, the switch 28 needs to be placed in the appropriate setting. The Examiner cannot argue that the setting of the switch 28 is based on “sensing” data received in a particular “mode” at a “decoder” because the switch 28 is set before the data is provided to the decoders in *Herve*.

*Herve* clearly does not choose the ISDN or STN mode by “sensing” data received in a particular “mode” at a “decoder.” Claim 1 specifically recites directing an encoder portion to direct an encoder to encode data in a particular mode “in response to sensing” data received in that particular “mode” at a “decoder.” As a result, *Herve* fails to anticipate all elements of Claim 1.

The Examiner cites various portions of *Herve* as allegedly disclosing these elements of Claim 1. For example, the Examiner cites column 3, line 63 through column 4, line 5 of *Herve* as allegedly disclosing the “sensing” of “data received in [a] custom mode at [a] decoder.” (*03/28/05 Office Action, Page 12, Second paragraph*). However, the cited portion of *Herve* contains absolutely no mention of “sensing” data received in a particular “mode” at a “decoder.” The cited portion of *Herve* recites that the switch 28 is used to select either ISDN mode or STN mode for the terminal (*Col. 3, Lines 62-64*), an STN signaling unit 29 controls a visiophone call (*Col. 3, Line 66 – Col. 4, Line 1*), and a RAM 30 supports answering and recording functions. (*Col. 4, Lines 1-5*). Nothing here indicates that the visiophone terminal of *Herve* “senses” data received in a particular “mode” at a “decoder” and then directs an encoder to encode data using that “mode.”

This portion of *Herve* does indicate that the setting of the switch 28 determines whether an ISDN mode or an STN mode is used. This portion of *Herve* does not indicate how the selection of ISDN or STN mode is made. In particular, this portion of *Herve* lacks any mention that the switch

28 is set to one of the modes “in response to sensing” data received in that “mode” at a “decoder” as recited in Claim 1.

The Examiner also asserts that *Herve* discloses decoding information in an “RTC” mode (also known as STN mode) “when (or in response to) sensing/detecting/receiving the data in the RTC mode.” (03/28/05 *Office Action*, Page 13, First paragraph). The Examiner fails to identify any portion of *Herve* supporting these assertions. In particular, the Examiner fails to identify where *Herve* discloses using a particular mode at an encoder in response to sensing, detecting, or receiving data encoded in that mode at a decoder. As shown in Figure 1 of *Herve*, the management system 18 controls the switch 28 (which controls whether ISDN or STN mode is used). The Examiner fails to explain how the management system 18 of *Herve* is capable of selecting a mode for an encoder “in response to sensing” data received in that “mode” at any of the decoders 32, 34, 36, 38.

In response to these arguments, the Examiner asserted that “selecting one of the encoders based on the type of data received at the decoders” and “sensing the type of data” are not being claimed. (06/14/05 *Advisory Action*, Page 2). However, the Appellants were not arguing that Claim 1 contains these precise recitations. Rather, the Appellants pointed out that *Herve* does not operate by sensing the type of data (ISDN or STN) received by the decoders and then selecting one of the encoders (ISDN or STN) based on the type of data received at the decoders. Because of that, *Herve* clearly cannot anticipate directing an encoder to encode data in a particular mode “in response to sensing” data received in that “mode” at a “decoder” as recited in Claim 1.

In addition, the Examiner argues that the encoders and decoders of *Herve* must be “synchronized in order to encode and decode the data.” (03/28/05 *Office Action*, Page 13, First

*paragraph).* In particular, the Examiner notes that if data is encoded in “RTC mode” by an encoder in response to switching to “RTC mode,” the decoder must also decode data in “RTC mode.” (*03/28/05 Office Action, Page 13, First paragraph*). The Appellants respectfully note that the Examiner ignores express recitations in Claim 1 to make this argument. Specifically, the Examiner ignores the fact that Claim 1 expressly recites that certain actions are taken “in response to sensing data received … at [a] decoder.” The Examiner does not establish that the “RTC mode” is selected by sensing data received “at [a] decoder.” The Examiner simply shows that the appropriate encoders and decoders are used if “RTC mode” is selected. The Examiner fails to show that “RTC mode” is selected in *Herve* “in response to sensing” data received in that “mode” at a “decoder.”

For these reasons, the Examiner fails to establish that *Herve* anticipates all elements recited in Claim 1. As a result, Claim 1 and its dependent claims are patentable over *Herve*. *Herve* also fails to anticipate analogous elements recited in Claims 9, 18, and 26. As a result, Claims 9, 18, and 26 and their dependent claims are patentable over *Herve*.

Accordingly, the Appellants respectfully request that the § 102 rejection of Claims 1-7, 9-16, 18-24, and 26-37 be withdrawn and that Claims 1-7, 9-16, 18-24, and 26-37 be passed to allowance.

## II. GROUND OF REJECTION #2 (§ 103 REJECTION)

The rejection of Claims 8, 17, 25, and 38 under 35 U.S.C. § 103(a) is improper and should be withdrawn.

**A. OVERVIEW**

Claims 8, 17, 25, and 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Herve* in view of U.S. Patent No. 6,721,916 to Agazzi (“Agazzi”).

**B. STANDARD**

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the Applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the Applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the

references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on the Applicant's disclosure. (*MPEP* § 2142).

C. **CLAIMS 8, 17, 25, AND 38**

Claims 8, 17, 25, and 38 depend from Claims 1, 9, 18, and 26, respectively. As shown above, Claims 1, 9, 18, and 26 are patentable. As a result, Claims 8, 17, 25, and 38 are patentable due to their dependence from allowable base claims.

Accordingly, the Appellants respectfully request that the § 103 rejection of Claims 8, 17, 25, and 38 be withdrawn and that Claims 8, 17, 25, and 38 be passed to allowance.

**SUMMARY**

The Appellants have demonstrated that the present invention as claimed is clearly distinguishable over the prior art cited of record. Therefore, the Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

The Appellants hereby authorize the Commissioner to charge the Appeal Brief fee of \$500 and any additional fees (including any extension of time fees) or credit any overpayments to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Nov. 16, 2001

  
\_\_\_\_\_  
William A. Munck  
Registration No. 39,308

P.O. Drawer 800889  
Dallas, Texas 75380  
(972) 628-3600 (main number)  
(972) 628-3616 (fax)  
E-mail: [wmunck@davismunck.com](mailto:wmunck@davismunck.com)



DOCKET NO. P04756  
SERIAL NO. 09/751,037  
PATENT

## APPENDIX A

### PENDING CLAIMS APPENDIX

1. For use with a network transceiver having a decoder and an encoder, a controller that controls operating modes of the network transceiver, comprising:

an encoder portion operable to direct said encoder to encode data in one of an industry-compliant mode and a custom mode; and

a decoder portion operable, in response to sensing data received in said custom mode at said decoder, to direct:

    said decoder to decode said received data in said custom mode; and

    said encoder portion to direct said encoder to encode data in said custom mode.

2. The controller for use with a network transceiver as recited in Claim 1 further comprising a state machine that includes at least two alternate states indicating whether said custom mode is enabled.

3. The controller for use with a network transceiver as recited in Claim 1 wherein at least said decoder portion is embodied in a peripheral card that is couplable to a computer system to allow said computer system to process said decoded data.

4. The controller for use with a network transceiver as recited in Claim 1 further comprising a reset portion that is operable to direct said controller to reset said operating mode of the network transceiver to said industry-compliant mode.

5. The controller for use with a network transceiver as recited in Claim 4 wherein said reset portion is associated with said decoder portion and operates to direct said decoder portion to direct:

    said decoder to decode said received data in said industry-compliant mode; and

    said encoder portion to direct said encoder to encode data in said industry-compliant mode.

6. The controller for use with a network transceiver as recited in Claim 1 wherein said decoder portion is further operable, in response to sensing data received in said industry-compliant mode at said decoder, to direct said decoder to decode said received data from said industry-compliant mode.

7. The controller for use with a network transceiver as recited in Claim 6 wherein said decoder portion is further operable to direct said encoder portion to control data transmission from said encoder in said industry-compliant mode.

8. The controller for use with a network transceiver as recited in Claim 1 wherein said industry-compliant mode is compliant with IEEE 802.3ab.

9. For use with a network transceiver having a decoder, an encoder, and a controller associated therewith, a method of operating said controller to allow operating modes of the network transceiver to be monitored and controlled, said method comprising the steps of:

sensing data received at said decoder in one of an industry-compliant mode and a custom mode; and

directing said encoder, in response to sensing data received in said custom mode at said decoder, to encode data in said custom mode.

10. The method of operating the controller as recited in Claim 9 wherein said directing step further comprises directing said decoder to decode said received data from said custom mode.

11. The method of operating the controller as recited in Claim 9 further comprising the step of using a state machine having at least two alternate states to indicate whether said custom mode is enabled.

12. The method of operating the controller as recited in Claim 9 wherein at least a decoder portion of the controller is embodied in a peripheral card that is couplable to a computer system and said method further comprises the step of controlling communication of said decoded data from the network transceiver to said computer system.

13. The method of operating the controller as recited in Claim 9 further comprising the step of resetting said operating mode of the network transceiver to said industry-compliant mode.

14. The method of operating the controller as recited in Claim 13 wherein said resetting step comprises the step of directing:

said decoder to decode said received data from said industry-compliant mode; and  
said encoder to encode data in said industry-compliant mode.

15. The method of operating the controller as recited in Claim 9 wherein said directing step further comprises directing said encoder, in response to sensing data received in said industry-compliant mode at said decoder, to encode data in said industry-compliant mode.

16. The method of operating the controller as recited in Claim 9 wherein said directing step further comprises directing said decoder, in response to sensing data received in said industry-compliant mode at said decoder, to decode received data from said industry-compliant mode.

17. The method of operating the controller as recited in Claim 9 wherein said industry-compliant mode is compliant with IEEE 802.3ab.

18. A network transceiver that is couplable to a computer system, comprising:  
an encoder that encodes data to be transmitted by said network transceiver;  
a decoder that decodes data received by said network transceiver; and  
a controller, associated with said decoder and said encoder, that controls operating modes of  
said network transceiver, comprising:

an encoder portion operable to direct said encoder to encode data in one of an  
industry-compliant mode and a custom mode; and

a decoder portion operable, in response to sensing data received in said custom mode  
at said decoder, to direct:

    said decoder to decode said received data in said custom mode; and  
    said encoder portion to direct said encoder to encode data in said custom  
mode.

19. The network transceiver as recited in Claim 18 further comprising a state machine  
that includes at least two alternate states indicating whether said custom mode is enabled.

20. The network transceiver as recited in Claim 18 wherein at least said decoder portion  
is embodied in a peripheral card that is couplable to the computer system to allow the computer  
system to process said decoded data.

21. The network transceiver as recited in Claim 18 wherein said controller further  
comprises a reset portion that is operable to direct said controller to reset said operating mode of the  
network transceiver to said industry-compliant mode.

22. The network transceiver as recited in Claim 21 wherein said reset portion is  
associated with said decoder portion and operates to direct said decoder portion to direct:

    said decoder to decode said received data in said industry-compliant mode; and  
    said encoder portion to direct said encoder to encode data in said industry-compliant mode.

23. The network transceiver as recited in Claim 18 wherein said decoder portion is further  
operable, in response to sensing data received in said industry-compliant mode at said decoder, to  
direct said decoder to decode said received data from said industry-compliant mode.

24. The network transceiver as recited in Claim 23 wherein said decoder portion is further  
operable to direct said encoder portion to control data transmission from said encoder in said  
industry-compliant mode.

25. The network transceiver as recited in Claim 18 wherein said industry-compliant mode  
is compliant with IEEE 802.3ab.

26. For use with a computer system having a network transceiver, a method of operating said network transceiver to allow operating modes thereof to be monitored and controlled, said method comprising the steps of:

sensing data received at a decoder associated with said network transceiver in one of an industry-compliant mode and a custom mode; and

encoding data to be transmitted by said network transceiver in said custom mode in response to sensing data received at said decoder in said custom mode.

27. The method of operating the network transceiver as recited in Claim 26 further comprising the step of decoding data in response to sensing data received at said decoder in said custom mode.

28. The method of operating the network transceiver as recited in Claim 26 further comprising the step of encoding data in said industry-compliant mode.

29. The method of operating the network transceiver as recited in Claim 26 further comprising the step of decoding data in said industry-compliant mode.

30. The method of operating the network transceiver as recited in Claim 26 wherein the network transceiver comprises a controller associated with said decoder and an encoder, and said method further comprises the step of using said controller to direct said encoder to encode data in one of said industry-compliant mode and said custom mode.

31. The method of operating the network transceiver as recited in Claim 30 wherein said using step further comprises directing said decoder to decode said received data from said custom mode.

32. The method of operating the network transceiver as recited in Claim 26 further comprising the step of using a state machine having at least two alternate states to indicate whether said custom mode is enabled.

33. The method of operating the network transceiver as recited in Claim 26 wherein at least a portion of the network transceiver is embodied in a peripheral card that is couplable to a computer system and said method further comprises the step of controlling communication of said decoded data from the network transceiver to the computer system.

34. The method of operating the network transceiver as recited in Claim 26 further comprising the step of resetting said operating mode of the network transceiver to said industry-compliant mode.

35. The method of operating the network transceiver as recited in Claim 34 wherein said resetting step comprises the steps of directing:

    said decoder to decode said received data in said industry-compliant mode; and  
    an encoder to encode data in said industry-compliant mode.

36. The method of operating the network transceiver as recited in Claim 26 further comprising the step of directing an encoder, in response to sensing data received in said industry-compliant mode at said decoder, to encode data in said industry-compliant mode.

37. The method of operating the network transceiver as recited in Claim 26 further comprising the step of directing said decoder, in response to sensing data received in said industry-compliant mode at said decoder, to decode received data from said industry-compliant mode.

38. The method of operating the network transceiver as recited in Claim 26 wherein said industry-compliant mode is compliant with IEEE 802.3ab.

39. A computer system for association with an Ethernet network, comprising:

    a processing unit;

    a memory, associated with said processing unit;

    an Ethernet transceiver, associated with said processing unit and said memory, that associates said computer system with said Ethernet network, said Ethernet transceiver comprising:

        an encoder that encodes data to be transmitted by said Ethernet transceiver over said Ethernet network;

        a decoder that decodes data received by said Ethernet transceiver over said Ethernet network; and

        a controller, associated with said decoder and said encoder, for controlling operating modes of said Ethernet transceiver, said controller operable to (i) negotiate a communications channel between said computer system and another computer system associated with said Ethernet network, said computer system entering one of a master state and a slave state, (ii) direct, in response to entering said master state, said encoder to encode data to be transmitted to said another computer in an industry-compliant mode and, if said encoded data is not properly received by said another computer, to encode data to be transmitted to said another computer in a custom mode, (iii) direct, in response to entering said slave state, said decoder to decode data received from said another computer in said industry-compliant mode and, if said received data cannot properly be decoded, to decode said received data in said custom mode.

40. The computer system as recited in Claim 39 wherein said controller is further operable to direct, in response to entering said master state, said decoder to decode data received from said another computer in one of said industry-compliant mode and said custom mode.

41. The computer system as recited in Claim 39 wherein said controller is further operable to direct, in response to entering said slave state, said encoder to encode data to be transmitted to said another computer in one of said industry-compliant mode and said custom mode.

42. The computer system as recited in Claim 39 wherein said controller is further operable to direct, in response to entering said slave state, said encoder to encode data to be transmitted to said another computer in one of said industry-compliant mode and said custom mode.

43. A computer system for association with an Ethernet network, comprising:  
a processing unit;  
a memory, associated with said processing unit;  
an Ethernet transceiver, associated with said processing unit and said memory, that associates said computer system with said Ethernet network, said Ethernet transceiver comprising:  
an encoder that encodes data to be transmitted by said Ethernet transceiver over said Ethernet network;  
a decoder that decodes data received by said Ethernet transceiver over said Ethernet network; and  
a controller, associated with said decoder and said encoder, for controlling operating modes of said Ethernet transceiver, said controller operable to (i) negotiate a communications channel between said computer system and another computer system associated with said Ethernet network, said computer system entering one of a master state and a slave state, (ii) direct, in response to entering said master state, said encoder to encode data to be transmitted to said another computer in a custom mode and, if said encoded data is not properly received by said another computer, to encode data to be transmitted to said another computer in an industry-compliant mode, (iii) direct, in response to entering said slave state, said decoder to decode data received from said another computer in said custom mode and, if said received data cannot properly be decoded, to decode said received data in said industry-compliant mode.

44. The computer system as recited in Claim 43 wherein said controller is further operable to direct, in response to entering said master state, said decoder to decode data received from said another computer in one of said industry-compliant mode and said custom mode.

45. The computer system as recited in Claim 43 wherein said controller is further operable to direct, in response to entering said slave state, said encoder to encode data to be transmitted to said another computer in one of said industry-compliant mode and said custom mode.

46. The computer system as recited in Claim 43 wherein said controller is further operable to direct, in response to entering said slave state, said encoder to encode data to be transmitted to said another computer in one of said industry-compliant mode and said custom mode.



DOCKET NO. P04756  
SERIAL NO. 09/751,037  
PATENT

47. A computer system for association with an Ethernet network, comprising:  
a processing unit;  
a memory, associated with said processing unit;  
an Ethernet transceiver, associated with said processing unit and said memory, that associates  
said computer system with said Ethernet network, said Ethernet transceiver comprising:  
an encoder that encodes data to be transmitted by said Ethernet transceiver over said  
Ethernet network;  
a decoder that decodes data received by said Ethernet transceiver over said Ethernet  
network; and  
a controller, associated with said decoder and said encoder, for controlling operating  
modes of said Ethernet transceiver, said controller (i) negotiates a communications channel between  
said computer system and another computer system associated with said Ethernet network, said  
computer system entering one of a master state and a slave state, and (ii) repeatedly directs, in  
response to entering one of said master state and said slave state, said encoder to encode data to be  
transmitted to said another computer in one of an industry-compliant mode and a custom mode until  
said encoded data is properly received by said another computer.

48. The computer system as recited in Claim 47 wherein said controller is further  
operable to decode data received from said another computer in one of said custom mode and said  
industry-compliant mode.

49. The computer system as recited in Claim 47 wherein said controller is further  
operable to terminate repeatedly encoding data in said one of an industry-compliant mode and a  
custom mode as a function of a threshold.

50. The computer system as recited in Claim 47 wherein said controller is further  
operable to randomly select one of said industry-compliant mode and said custom mode and to  
encode data to be transmitted to said another computer in said randomly selected one of said  
industry-compliant mode and said custom mode.

51. The computer system as recited in Claim 47 wherein said controller is further  
operable to randomly select one of said industry-compliant mode and said custom mode in response  
to said encoded data is not properly received by said another computer and to encode data to be  
transmitted to said another computer in said randomly selected one of said industry-compliant mode  
and said custom mode.



DOCKET NO. P04756  
SERIAL NO. 09/751,037  
PATENT

**APPENDIX B**

**EVIDENCE APPENDIX**

None



DOCKET NO. P04756  
SERIAL NO. 09/751,037  
PATENT

**APPENDIX C**

**RELATED PROCEEDINGS APPENDIX**

None

DOCKET NO. P04756  
OISLENT NO.: NATI15-04756  
Customer No. 23990

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Long application of : PETER J. SALLAWAY, ET AL.

U.S. Serial No. : 09/751,037

Filed : December 29, 2000

For : SYSTEMS FOR MONITORING AND CONTROLLING OPERATING MODES IN AN ETHERNET TRANSCEIVER AND METHODS OF OPERATING THE SAME

Group No. : 2661

Examiner : Ian N. Moore

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**CERTIFICATE OF MAILING BY FIRST CLASS MAIL**

Sir:

The undersigned hereby certifies that the following documents:

1. Substitute Appeal Brief; and
2. Postcard receipt

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to MAIL STOP APPEAL BRIEF, PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on November 16, 2005.

Date: NOVEMBER 16, 2005

  
\_\_\_\_\_  
Mailer

Date: Nov 16, 2005

  
\_\_\_\_\_  
Willian A. Munck  
Reg. No. 39,308

P.O. Drawer 800889  
Dallas, Texas 75380  
Phone: (972) 628-3600  
Fax: (972) 628-3616  
E-mail: [wmunck@davismunck.com](mailto:wmunck@davismunck.com)